

PCT

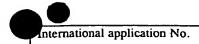
INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or CML00596JC	agent's file reference	FOR FURTHER ACTION		form PCT/ISA/220) as well as, where applicable, low.				
International application No. PCT/US04/02614		International filing date (day/month/year) 30 January 2004 (30.01.2004)		(Earliest) Priority Date (day/month/year) 31 January 2003 (31.01.2003)				
Applicant MOTOROLA, INC.								
This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.								
This international search report consists of a total of sheets. It is also accompanied by a copy of each prior art document cited in this report.								
1. /Basis of the Report a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.								
	Authority (Rule 23.1(b)).	and/or amino acid sequence disc		international application furnished to this international application, the international				
	contained in the international	al application in written form.						
		national application in computer rea	idable form	1.				
	furnished subsequently to th	is Authority in written form.						
	•	is Authority in computer readable						
the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.								
	the statement that the information been furnished.	nation recorded in computer readab	ole form is	identical to the written sequence listing has				
2.	Certain claims were found	unsearchable (See Box I).						
3.	Unity of invention is lacking	ng (See Box II).						
4. With re	gard to the title,							
	the text is approved as subm							
	the text has been established	l by this Authority to read as follow	vs:					
5. 'ith re	gard to the abstract.							
	the text is approved as subm	nitted by the applicant.						
	the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.							
6. The figu	ire of the drawings to be pul	blished with the abstract is Figure	No. <u>1</u>					
	as suggested by the applicar	nt		None of the figures				
	because the applicant failed	to suggest a figure.						
	because this figure better ch	paracterizes the invention.						

Form PCT/ISA/210 (first sheet) (July 1998)





PCT/US04/02614

Box III TEXT OF THE ABSTRACT (Continuation of Item 5 of the first sheet)

The technical features mentioned in the abstract do not include a reference sign between parentheses (PCT Rule 8.1(d)).

NEW ABSTRACT

To provide high-quality communication even when the power for synchronization preamble is reduced in an OFDM communication system, an OFDM communication transmitter obtains a zero amplitude reduced preamble signal by passing a specified synchronization preamble through an ideal low-pass filter (10) to reduce a signal component near zero amplitude within a time domain and time-multiplexes (11) the obtained zero amplitude reduced preamble signal with transmit data to generate an OFDM transmit signal. A receiver section (20) of the OFDM communication system determines the cross correlation (19) between a receive signal and a specified synchronization preamble (17), which is patterned the same as the counterpart in a transmitter section of the OFDM communication system, and detects a synchronization position in accordance with the determined cross correlation.

Form PCT/ISA/210 (continuation of first sheet(2)) (July 1998)



International application No.

PCT/US04/02614

A. CLASSIFICATION OF SUBJECT MATTER								
IPC(7) : H04L 27/28; H04K 1/10 US CL : 375/260; 370/210								
According to International Patent Classification (IPC) or to both national classification and IPC								
B. FIELDS SEARCHED								
Minimum documentation searched (classification system followed by classification symbols) U.S.: 375/222, 260, 295, 354, 365, 368; 370/208, 210								
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched								
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet								
C. DOC	UMENTS CONSIDERED TO BE RELEVANT							
Category *	Citation of document, with indication, where ap		Relevant to claim No.					
Α	US 2001/0022810 A1 (JOO) 20 September 2001 (20	.09.2001), entire document.	1-10					
.∕ A	US 6,381,251 B1 (SANO et al) 30 April 2002 (30.04	5-10						
A, P	US 6,658,063 B1 (MIZUGUCHI et al) 02 December	5-10						
Further	documents are listed in the continuation of Box C.	See patent family annex.						
* S	pecial categories of cited documents:	"T" later document published after the inte date and not in conflict with the applic						
"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent published on or after the international filling date		principle or theory underlying the inve "X" document of particular relevance; the	ention					
		considered novel or cannot be considered when the document is taken alone						
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)		"Y" document of particular relevance; the considered to involve an inventive step combined with one or more other such	when the document is					
"O" document	referring to an oral disclosure, use, exhibition or other means	being obvious to a person skilled in the	e art					
priority d	published prior to the international filing date but later than the ate claimed	"&" document member of the same patent	family					
Date of the actual completion of the international search		Date of mailing of the international search 19 AUG 2004 Authorized officer Betsy L. Deppe	ch report					
	(21.07.2004) ailing address of the ISA/US	Authorized officer						
Mail Stop PCT, Aun: ISA/US		Borey I Danne / Mary	1					
Commissioner for Patents P.O. Box 1450		Betsy L. Deppe						
	xandria, Virginia 22313-1450	Telephone No. (703) 305-4700						
Facsimile No	. (703) 305-3230							

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Continuation of B. FIELDS S	SEARCHED	Item	3:
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EAST (USPAT: USPGPub; JPO; EPO; Derwent)
OFDM or multicarrier or multitone or DMT: low pass filter; synchronization; correlat\$4; preamble